

WHAT IS CLAIMED IS:

1           1. A bus brace comb assembly for use in a switchgear assembly,  
2     the switchgear assembly having a channel bus bar for conveying electrical  
3     current in each phase, to hold the bus bar in place against magnetic  
4     forces associated with short-circuit currents in the switchgear bus bar,  
5     the bus brace comb assembly comprising:

6                 a front comb assembly including a first bus clip configured to  
7     position the bus bar and a front brace coupled to the bus clip; and

8                 a rear comb assembly including an interlock clamp configured  
9     to engage the channel bus bar and second bus clip secured to the  
10    interlock clamp with a fastener and a rear brace coupled to the interlock  
11    clamp/bus clip assembly, wherein a flange of the channel bus bar is  
12    pinched between the rear brace and the interlock clamp/bus clip assembly  
13    to secure the channel bus bar.

1           2. The bus brace comb assembly of claim 1, including a third bus  
2     clip a spaced-distance from the first bus clip and coupled to the front  
3     brace.

1           3. The bus brace comb assembly of claim 1, wherein the front  
2     brace and rear brace are configured to couple with a plurality of bus clips  
3     in a multiple phase switchgear assembly.

1           4. The bus brace comb assembly of claim 3, wherein the bus clips  
2     are E-shape.

1           5. The bus brace comb assembly of claim 1, wherein each bus  
2     brace comb is configured to receive multiple channel bus bars.

1       6. The bus brace comb assembly of claim 3, including an insulation  
2 cover.

1       7. A switchgear assembly including a channel bus bar for each  
2 electric power phase and for conveying electric current, with the channel  
3 bus bar maintained in position by a bus brace comb assembly and braced  
4 against magnetic forces associated with short-circuit currents in the  
5 switchgear bus bar by the bus brace comb, the bus brace comb assembly  
6 comprising:

7               a front comb assembly including a first bus clip configured to  
8 position the bus bar and a front brace coupled to the bus clip; and

9               a rear comb assembly including an interlock clamp configured  
10 to engage the channel bus bar and second bus clip secured to the  
11 interlock clamp with a fastener and a rear brace coupled to the interlock  
12 clamp/bus clip assembly, wherein a flange of the channel bus bar is  
13 pinched between the rear brace and the interlock clamp/bus clip assembly  
14 to secure the channel bus bar.

1       8. The switchgear assembly of claim 7, including a third bus clip a  
2 spaced-distance from the first bus clip and coupled to the front brace.

1       9. The switchgear assembly of claim 7, wherein the front brace  
2 and rear brace are configured to couple with a plurality of bus clips in a  
3 multiple phase switchgear assembly.

1       10. The switchgear assembly of claim 9, wherein the bus clips  
2 are E-shape.

1       11. The switchgear assembly of claim 7, wherein each bus clip is  
2 configured to receive multiple channel bus bars.

1           12.    The switchgear assembly of claim 9, including an insulation  
2 cover.

1           13.    A method of securing and positioning channel bus bars in  
2 each power phase of a switchgear assembly with a bus brace comb  
3 assembly having a front comb assembly and a rear comb assembly, the  
4 method comprising the steps of:

5                   positioning each channel bus bar in a bus clip of the front  
6 comb assembly;

7                   installing an interlock clamp to couple with at least one  
8 flange of a channel bus bar in each power phase;

9                   fastening another bus clip to the interlock clamp; and

10                  coupling a rear brace to each bus clip/interlock clamp  
11 assembly, wherein the flange of the channel bus bar is pinched in the  
12 interlock clamp/bus clip assembly to secure the channel bus bar.

1           14.    The method of claim 13, including the step of coupling a  
2 front brace to the bus clip of the front comb assembly.

1           15.    The method of claim 13, including the step of positioning a  
2 third bus clip a spaced distance from the bus clip of the front comb  
3 assembly.

1           16.    The method of claim 13, wherein each channel bus bar of  
2 each power phase is coupled to the front comb assembly and rear comb  
3 assembly.

1           17.    The method of claim 16, including the step of installing an  
2 insulation cover on the bus brace comb assembly.

1           18.    The method of claim 13, wherein each bus clip is E-shaped.